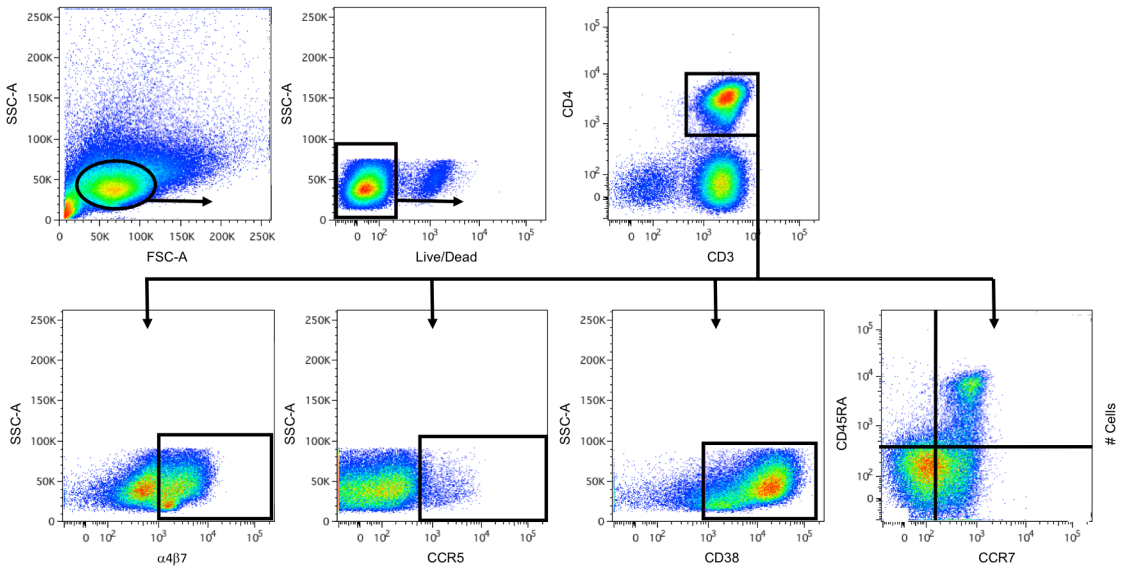
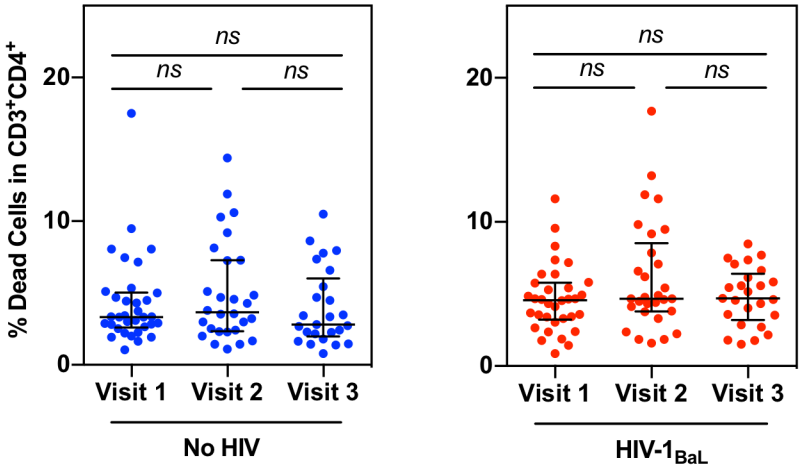


Supplementary Figure 1. Gating strategy and analysis of cell surface markers for HIV preference. Lymphocytes were selected based on forward scatter versus side scatter. Dead cells were excluded from analysis. $CD4^+$ T cells were identified based on expression of CD3 and CD4. Within the $CD4^+$ T cell population, expression of surface markers integrin $\alpha 4\beta 7$, CCR5, CD38, CCR7, CD45RA were analyzed.



Supplementary Figure 2. Depo-Provera does not increase cell death of $CD4^+$ T cells exposed to HIV. PBMCs exposed to $HIV\text{-}1_{BaL}$ (MOI 0.01) were cultured for 10 days and the percentage of dead cells within the $CD3^+CD4^+$ T cell population was determined by flow cytometry using the Zombie UV fixable viability kit as described in methods. Uninfected cells were included as a comparison. Each dot represents one donor. Bars represent median and interquartile range. Wilcoxon matched-pairs signed rank test was used to compare differences between study visits. $p \leq 0.05$ was considered significant, $p > 0.05$ was not significant (*ns*).

		Markers Day 0	*r*-value	*P*-Value Spearman Correlation
All Donors	p24% Day 10 vs.	α4β7	-0.1888	0.0683
		CCR5	-0.03804	0.7204
		CD38	-0.1476	0.1535
	p24 release Day 7 vs.	α4β7	-0.2217	**0.0379**
		CCR5	-0.1692	0.1149
		CD38	-0.2101	**0.0444**
Black	p24% Day 10 vs.	α4β7	-0.2272	0.0986
		CCR5	-0.06092	0.6743
		CD38	-0.3168	**0.0196**
	p24 release Day 7 vs.	α4β7	-0.1657	0.2268
		CCR5	-0.2347	0.0973
		CD38	-0.2053	0.1326
Hispanic	p24% Day 10 vs.	α4β7	-0.1845	0.2481
		CCR5	-0.03721	0.8174
		CD38	0.1631	0.3083
	p24 release Day 7 vs.	α4β7	-0.2048	0.2309
		CCR5	-0.04576	0.788
		CD38	-0.2165	0.1982

Supplementary Figure 3. Correlation between HIV infection and expression of HIV preference markers on freshly isolated PBMCs (Day 0) from subjects before or after Depo-Provera administration. The association between HIV infection (the frequency of HIV p24+ cells at day 10 or the level of HIV p24 in cell culture supernatant at day 7) and the frequency surface expression of integrin $\alpha 4\beta 7$, CCR5, or CD38 on freshly isolated PBMCs (Day 0) was analyzed by nonparametric Spearman correlation coefficient. P value <0.05 was in bold.

		Markers Day 10	*r*-value	*P*-Value Spearman Correlation
All Donors	p24% Day 10 vs.	α4β7	-0.06958	0.5029
		CCR5	0.1014	0.3308
		CD38	-0.02138	0.8397
	p24 release Day 7 vs.	α4β7	-0.1623	0.1285
		CCR5	0.1266	0.2265
		CD38	-0.09815	0.3574
Black	p24% Day 10 vs.	α4β7	0.663	0.663
		CCR5	0.1944	0.1944
		CD38	0.803	0.803
	p24 release Day 7 vs.	α4β7	0.01342	0.9233
		CCR5	-0.04889	0.723
		CD38	-0.1335	0.336
Hispanic	p24% Day 10 vs.	α4β7	0.4087	0.4087
		CCR5	0.8048	0.8048
		CD38	0.6832	0.6832
	p24 release Day 7 vs.	α4β7	0.0191	**0.0191**
		CCR5	0.0535	0.0535
		CD38	0.01601	0.9251

Supplementary Figure 4. Correlation between HIV infection and expression of HIV preference markers on HIV-infected PBMCs at day 10 post-infection. The association between HIV infection (the frequency of HIV p24+ cells at day 10 or the level of HIV p24 in cell culture supernatant at day 7) and the frequency or surface expression level of integrin $\alpha4\beta7$, CCR5, or CD38 on HIV-infected PBMCs at day 10 post-infection was analyzed by nonparametric Spearman correlation coefficient. P value <0.05 was in bold.